AMENDMENTS TO THE CLAIMS

1. (Currently Amended) The use A method for inhibiting aurora 2 kinase in a warm blooded animal in need of such treatment, which comprises administering to said animal an effective amount of a compound of formula (I)

$$R^2$$
 R^3
 R^4
 R^4

(I)

or a salt, ester, amide or prodrug thereof; where X is O, or S, S(O) or S(O)₂, NH or NR⁸ where R⁸ is hydrogen or C_{1-6} alkyl; R^a is a 3-quinoline group or a group of sub-formula (i)

$$R^7$$
 R^5
 R^6

where R⁵ is either a group -Z-(CH₂)_n-R⁹, halogen, a group of formula NR¹⁰R¹⁰, an optionally substituted substituted hydrocarbyl group (other than ethenyl substituted by a carboxy group or an amide or sulphonamide derivative thereof), an optionally substituted heterocyclyl group or an optionally substituted alkoxy group; where Z is O or S, n is 0, or an integer of from 1 to 6, R⁹ is hydrogen or optionally substituted hydrocarbyl or optionally substituted heterocyclyl; R¹⁰ and R¹⁰ are independently selected from hydrogen, optionally substituted hydrocarbyl or optionally substituted heterocyclyl, or R¹⁰ and R¹⁰ together with the nitrogen atom to which they are attached form an optionally substituted heterocyclic ring which may optionally contain further

inhibtion of aurora 2 kinase.

heteroatoms, or an azo group of formula -N=N-R¹¹ where R¹¹ is an optionally substituted hydrocarbyl group or optionally substituted heterocyclyl group; R⁶ and R⁷ are independently selected from hydrogen, halo, C_{1.4}alkyl, C_{1.4} alkoxy, C₁₋₄alkoxymethyl, di(C₁₋₄alkoxy)methyl, C₁₋₄alkanoyl, trifluoromethyl, cyano, amino, C₂₋₅alkenyl, C₂₋₅alkynyl, a phenyl group, a benzyl group or a 5-6-membered heterocyclic group with 1-3 heteroatoms, selected independently from O, S and N, which heterocyclic group may be aromatic or non-aromatic and may be saturated (linked via a ring carbon or nitrogen atom) or unsaturated (linked via a ring carbon atom), and which phenyl, benzyl or heterocyclic group may bear on one or more ring carbon atoms up to 5 substituents selected from hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro, C₂₋₄alkanoyl, C₁₋₄alkanoylamino, C₁₋₄alkoxycarbonyl, C₁₋₄alkylsulphanyl, C₁₋₄alkylsulphinyl, C₁₋₄alkylsulphonyl, carbamoyl, \underline{N} - C_{1-4} alkylcarbamoyl, \underline{N} , \underline{N} -di(C_{1-4} alkyl)carbamoyl, aminosulphonyl, N-C₁₋₄alkylaminosulphonyl, N,N-di(C₁₋₄alkyl)aminosulphonyl, C₁₋₄alkylsulphonylamino, and a saturated heterocyclic group selected from morpholino, thiomorpholino, pyrrolidinyl, piperazinyl, piperidinyl, imidazolidinyl and pyrazolidinyl, which saturated heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro and C₁₋₄alkoxycarbonyl, and R¹, R², R³, R⁴ are independently selected from halogeno, cyano, nitro, C₁₋₃alkylsulphanyl, -N(OH)R¹² (wherein R¹² is hydrogen, or C₁₋₃alkyl), or R¹⁴X¹-(wherein X¹ represents a direct bond, -O-, -CH₂-, -OC(O)-, -C(O)-, -S-, -SO-, -SO₂-, -NR¹⁵C(O)-, -C(O)NR¹⁶-, -SO₂NR¹⁷-, -NR¹⁸SO₂- or -NR¹⁹- (wherein R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl)), and R¹⁴ is hydrogen, optionally substituted hydrocarbyl, optionally substituted heterocyclyl or optionally substituted alkoxy; in the preparation of a medicament for use in the

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2. (Currently Amended) The method use according to claim 1, wherein in the compound of formula (I), at least one group R¹, R², R³, R⁴ is a group R¹⁴X¹- and R¹⁴ is hydrogen, an optionally substituted hydrocarbyl group selected from alkyl, alkenyl, alkynyl, aryl, aralkyl, cycloalkyl, cycloalkenyl or cycloalkynyl, or combinations thereof; or an

optionally substituted heterocyclyl group of from 4 to 20 ring atoms, at least one of which is a heteroatom such as oxygen, sulphur or nitrogen and where the optional substituents comprise at least one functional group selected from nitro, cyano, halo, oxo, =CR⁷⁸R⁷⁹, C(O)_xR⁷⁷, OR⁷⁷, S(O)_yR⁷⁷, NR⁷⁸R⁷⁹, C(O)NR⁷⁸R⁷⁹, OC(O)NR⁷⁸R⁷⁹, =NOR⁷⁷, -NR⁷⁷C(O)_xR⁷⁸, -NR⁷⁷CONR⁷⁸R⁷⁹, -N=CR⁷⁸R⁷⁹, S(O)_yNR⁷⁸R⁷⁹ or -NR⁷⁷S(O)_yR⁷⁸ where R⁷⁷, R⁷⁸ and R⁷⁹ are independently selected from hydrogen, optionally substituted hydrocarbyl, optionally substituted heterocyclyl heterocyclyl or optionally substituted alkoxy, or R⁷⁸ and R⁷⁹ together form an optionally substituted ring which optionally contains further heteroatoms such as oxygen, nitrogen, S, S(O) or S(O)₂, where x is an integer of 1 or 2, y is 0 or an integer of 1-3.

- 3. (Currently Amended) The method use according to claim 2, where hydrocarbyl, heterocyclyl or alkoxy groups R⁷⁷, R⁷⁸ and R⁷⁹ as well as rings formed by R⁷⁸ and R⁷⁹ are optionally substituted by halo, perhaloalkyl, mercapto, alkylthio, hydroxy, carboxy, alkoxy, heteroaryl, heteroaryloxy, cycloalkyl, cycloalkenyl, cycloalkynyl, alkenyloxy, alkynyloxy, alkoxyalkoxy, aryloxy (where the aryl group may be substituted by halo, nitro, or hydroxy), cyano, nitro, amino, mono- or di-alkyl amino, oximino or S(O)_yR⁹⁰ where y is as defined above and R⁹⁰ is an alkyl.
- 4. (Currently Amended) The method use according to claim 1 any one of the preceding elaims, where wherein in the compound of formula (I) at least one of R¹, R², R³ and R⁴ is a group R¹⁴X¹- where X¹ is as defined in relation to formula (I) and R¹⁴ is selected from one of the following twenty-two groups:
 - 1) hydrogen or C₁₋₅alkyl which may be unsubstituted or which may be substituted with one or more functional groups;
 - 2) $-R^aX^2C(O)R^{20}$ (wherein X^2 represents -O- or $-NR^{21}$ (in which R^{21} represents hydrogen, or alkyl optionally substituted with a functional group) and R^{20} represents C_{1-3} alkyl, $-NR^{22}R^{23}$ or $-OR^{24}$ (wherein R^{22} , R^{23} and R^{24} which may be the same or different each represents hydrogen, or alkyl optionally substituted with a functional group));
 - 3) $-R^bX^3R^{25}$ (wherein X^3 represents -O-, -C(O)-, -S-, -SO-, -SO₂-, -OC(O)-, -NR²⁶C(O)-, -NR²⁶C(O)O-, -C(O)NR²⁷-, -C(O)ONR²⁷-, -SO₂NR²⁸-, -NR²⁹SO₂- or -NR³⁰- (wherein

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R²⁶, R²⁷, R²⁸, R²⁹ and R³⁰ each independently represents hydrogen, or alkyl optionally substituted with a functional group) and R²⁵ represents hydrogen, hydrocarbyl (as defined herein) or a saturated heterocyclic group, wherein the hydrocarbyl or heterocyclic groups may be optionally substituted by one or more functional groups and the heterocyclic groups may additionally be substituted by a hydrocarbyl group); 4) -R^cX⁴R^{c'} X⁵R³¹ (wherein X⁴ and X⁵ which may be the same or different are each -O-, -C(O)-, -S-, -SO-, -SO₂-, -OC(O)-, -NR³²C(O)-, -NR³²C(O)O-, -C(O)NR³³-, -C(O)ONR³³-, -SO₂NR³⁴-, -NR³⁵SO₂- or -NR³⁶- (wherein R³², R³³, R³⁴, R³⁵ and R³⁶ each independently represents hydrogen or alkyl optionally substituted by a functional group) and R³¹ represents hydrogen, or alkyl optionally substituted by a functional group); 5) R³⁷ wherein R³⁷ is a C_{3.6} cycloalkyl or saturated heterocyclic ring (linked via carbon or nitrogen), which cycloalkyl or heterocyclic group may be substituted by one or more functional groups or by a hydrocarbyl or heterocyclyl group which hydrocarbyl or heterocyclyl group may be optionally substituted by one or more functional groups;

- 6) -R^dR³⁷ (wherein R³⁷ is as defined hereinbefore);
- 7) R^eR³⁷ (wherein R³⁷ is as defined hereinbefore);
- 8) -R^f R³⁷ (wherein R³⁷ is as defined hereinbefore);
- 9) R³⁸ (wherein R³⁸ represents a pyridone group, an aryl group or an aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, aryl or aromatic heterocyclic group may be substituted by one or more functional groups or by a hydrocarbyl group optionally substituted by one or more functional groups or heterocyclyl groups, or by a heterocyclyl group optionally susbsituted by one or more functional groups or hydrocarbyl groups);
- 10) -R^gR³⁸ (wherein R³⁸ is as defined hereinbefore);
- 11) -R^hR³⁸ (wherein R³⁸ is as defined hereinbefore);
- 12) -Ri R38 (wherein R38 is as defined hereinbefore);
- 13) -R^j X⁶R³⁸ (wherein X⁶ represents -O-, -S-, -SO-, -SO₂-, -OC(O)-, -NR⁴³C(O)-, -NR⁴³C(O)O-, -C(O)NR⁴⁴-, -C(O)ONR⁴⁴-, -SO₂NR⁴⁵-, -NR⁴⁶SO₂- or -NR⁴⁷- (wherein R⁴³, R⁴⁴, R⁴⁵, R⁴⁶ and R⁴⁷ each independently represents hydrogen, or alkyl optionally substituted with a functional group) and R38 is as defined hereinbefore);
- 14) $-R^{k}X^{7}R^{38}$ (wherein X^{7} represents -O-, -C(O)-, -S-, -SO-, -SO₂-, -OC(O)-, $-NR^{48}C(O)$ -, $NR^{48}C(O)O$ -, $-C(O)NR^{49}$ -, $-C(O)ONR^{49}$ -, $-SO_2NR^{50}$ -, $-NR^{51}SO_2$ - or $-NR^{52}$ -

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(wherein R⁴⁸, R⁴⁹, R⁵⁰, R⁵¹ and R⁵² each independently represents hydrogen, or alkyl optionally substituted with a functional group) and R³⁸ is as defined hereinbefore); 15) -R^mX⁸R³⁸ (wherein X⁸ represents -O-, -C(O)-, -S-, -SO-, -SO₂-, -OC(O)-, -NR⁵³C(O)-, -NR⁵³C(O)O-, -C(O)NR⁵⁴-, -C(O)ONR⁵⁴-, -SO₂NR⁵⁵-, -NR⁵⁶SO₂- or -NR⁵⁷- (wherein R⁵³, R⁵⁴, R⁵⁵, R⁵⁶ and R⁵⁷ each independently represents hydrogen, hydrogen, or alkyl optionally substituted with a functional group) and R³⁸ is as defined hereinbefore); 16) -Rⁿ X⁹Rⁿ'R³⁸ (wherein X⁹ represents -O-, -C(O)-, -S-, -SO-, -SO₂-, -OC(O)-, -NR⁵⁸C(O)-, -NR⁵⁸C(O)O-, -C(O)NR⁵⁹-, -C(O)ONR⁵⁹-, -SO₂NR⁶⁰-, -NR⁶¹SO₂- or -NR⁶²- (wherein R⁵⁸, R⁵⁹, R⁶⁰, R⁶¹ and R⁶² each independently represents hydrogen, hydrogen, or alkyl optionally substituted with a functional group) and R³⁸ is as defined hereinbefore);

- 17) -R^p X⁹-R^p'R³⁷ (wherein X⁹ and R³⁷ are as defined hereinbefore);
- 18) C₂₋₅alkenyl which may be unsubstituted or which may be substituted with one or more functional groups;
- 19) C₂₋₅alkynyl which may be unsubstituted or which may be substituted with one or more functional groups;
- 20) -R^tX⁹R^t'R³⁷ (wherein X⁹ and R³⁷ are as defined hereinbefore);
- 21) -R^u X⁹ R^{u'}R³⁷ (wherein X⁹ and R³⁷ are as defined hereinbefore); and
- 22) R^v R⁶³(R^{v'})_q(X⁹)_rR⁶⁴(wherein X⁹ is as defined hereinbefore, q is 0 or 1, r is 0 or 1, and R⁶³ is a C₁₋₃alkylene group or a cyclic group selected from divalent cycloalkyl or heterocyclic group, which C₁₋₃alkylene group may be substituted by one or more functional groups and which cyclic group may be substituted by one or more functional groups or by a hydrocarbyl group optionally substituted by one or more functional groups or heterocyclyl groups, or by a heterocyclyl group optionally substituted substituted by one or more functional groups or hydrocarbyl groups; and R⁶⁴ is hydrogen, C₁₋₃alkyl, or a cyclic group selected from cycloalkyl or heterocyclic group, which C₁₋₃alkyl group may be substituted by one or more functional groups and which cyclic group may be substituted by one or more functional groups or by a hydrocarbyl group optionally substituted by one or more functional groups or heterocyclyl groups, or by a heterocyclyl group optionally substituted by one or more functional groups or hydrocarbyl groups);

and wherein R^a , R^b ,[[,,]] R^c , R^c , R^d , R^g , R^j , R^n , R^n , R^p , R^p , R^u , R^u , R^u and R^v are independently selected from C_{1-8} alkylene groups optionally substitued by one or more functional groups,

 R^e R^h , R^k and R^t are independently selected from C_{2-8} alkenylene groups optionally substituted by one or more functional groups, and

 R^f , R^i , R^m and R^u are independently selected from C_{2-8} alkynylene groups optionally substituted by one or more functional groups.

5. (Currently Amended) The method use according to any one of the preceding claims, wherein the compound of formula (I) is a compound of formula (II)

$$R^7$$
 Z — $(CH_2)_{\overline{n}}$ — R^9 R^9

(II)

or a salt, ester, amide or prodrug thereof;

where X, Z, n, R⁹, R⁶, R⁷, R¹, R², R³ and R⁴ are as defined in claim 1.

6. (Currently Amended) The method use according to claim 5, wherein the compound of formula (II) is compound of formula (IIA) which has the structure (II) as shown in claim 5, or a

salt, ester or amide thereof; and

where X is O, or S, S(O) or S(O)₂, or NR⁸ where R⁸ is hydrogen or C_{1-6} alkyl; Z is O or S.

n is 0, or an integer of from 1 to 6

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R⁹ is hydrogen or optionally substituted hydrocarbyl or optionally substituted heterocyclyl;

and R⁶ and R⁷ are independently selected from hydrogen, halo, C₁₋₄alkyl halo, C₁₋₄alkyl, C₁₋₄ alkoxy, C₁₋₄alkoxymethyl, di(C₁₋₄alkoxy)methyl, C₁₋₄alkanoyl, trifluoromethyl, cyano, amino, C2-5alkenyl, C2-5alkynyl, a phenyl group, a benzyl group or a 5-6-membered heterocyclic group with 1-3 heteroatoms, selected independently from O, S and N, which heterocyclic group may be aromatic or non-aromatic and may be saturated (linked via a ring carbon or nitrogen atom) or unsaturated (linked via a ring carbon atom), and which phenyl, benzyl or heterocyclic group may bear on one or more ring carbon atoms up to 5 substituents selected from hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro, C₂₋₄alkanoyl, C₁₋₄alkanoylamino, C₁₋₄alkoxycarbonyl, C₁₋₄alkylsulphanyl, C₁₋₄alkylsulphinyl, C_{1-4} alkylsulphonyl, carbamoyl, $N-C_{1-4}$ alkylcarbamoyl, $N-C_{1-4}$ alkylcarbamoyl, aminosulphonyl, N-C₁₋₄alkylaminosulphonyl, N,N-di(C₁₋₄alkyl)aminosulphonyl, C₁₋₄alkylsulphonylamino, and a saturated heterocyclic group selected from morpholino, thiomorpholino, pyrrolidinyl, piperazinyl, piperidinyl imidazolidinyl and pyrazolidinyl, which saturated heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro and C14alkoxycarbonyl, and R¹, R², R³, R⁴ are independently selected from, halo, cyano, nitro, trifluoromethyl,

- C₁₋₃alkyl, -NR¹²R¹³ (wherein R¹² and R¹³, which may be the same or different, each represents hydrogen or C₁₋₃alkyl), or -X¹R¹⁴ [[(]]wherein X¹ represents a direct bond, -O-, -CH₂-, -OCO-, carbonyl, -S-, -SO-, -SO₂-, -NR¹⁵CO-, -CONR¹⁶-, -SO₂NR¹⁷-, -NR¹⁸SO₂- or -NR¹⁹- (wherein R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl), and R¹⁴ is selected from one of the following groups:
- 1') hydrogen or C₁₋₅alkyl which may be unsubstituted or which may be substituted with one or more groups selected from hydroxy, fluoro or amino,
- 2') C₁₋₅alkvlX²COR²⁰ (wherein X² represents -O- or -NR²¹- (in which R²⁰ represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{21} represents C_{1-3} alkyl, -NR 22 R 23 or -OR²⁴ (wherein R²², R²³ and R²⁴ which may be the same or different each represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl));

3') C₁₋₅alkylX³R²⁵ (wherein X³ represents -O-, -S-, -SO-, -SO₂-, -OCO-, -NR²⁶CO-, -CONR²⁷-, -SO₂NR²⁸-, -NR²⁹SO₂- or -NR³⁰- (wherein R²⁶, R²⁷, R²⁸, R²⁹ and R³⁰ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R²⁵ represents hydrogen, C₁₋₃alkyl, cyclopentyl, cyclohexyl or a 5-6-membered saturated heterocyclic group with 1-2 heteroatoms, selected independently from O, S and N, which C₁₋₃alkyl group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno and C₁₋₄alkoxy and which cyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl and C₁₋₄alkoxy);

- 4') C_{1-5} alkyl X^4C_{1-5} alkyl X^5R^{31} (wherein X^4 and X^5 which may be the same or different are each -O-, -S-, -SO-, -SO₂-, -NR³²CO-, -CONR³³-, -SO₂NR³⁴-, -NR³⁵SO₂- or NR³⁶- (wherein R³², R³³, R³⁴, R³⁵ and R³⁶ each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R³¹ represents hydrogen or C_{1-3} alkyl);
- 5') R³⁷ (wherein R³⁷ is a 5-6-membered saturated heterocyclic group (linked via carbon or nitrogen) with 1-2 heteroatoms, selected independently from O, S and N, which heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, C₁₋₄alkoxyC₁₋₄alkyl and C₁₋₄alkylsulphonylC₁₋₄alkyl);
- 6') C₁₋₅alkylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 7') C₂₋₅alkenylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 8') C₂₋₅alkynylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 9') R³⁸ (wherein R³⁸ represents a pyridone group, a phenyl group or a 5-6-membered aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, phenyl or aromatic heterocyclic group may carry up to 5 substituents on an available carbon atom selected from hydroxy, halogeno, amino, C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄hydroxyalkyl, C₁₋₄aminoalkyl, C₁₋₄alkylamino, C₁₋₄hydroxyalkoxy, carboxy, trifluoromethyl, cyano, -CONR³⁹R⁴⁰ and -NR⁴¹COR⁴² (wherein R³⁹, R⁴⁰, R⁴¹ and R⁴², which may be the same or different, each represents hydrogen, C₁₋₄alkyl or C₁₋₃alkoxyC₂₋₃alkyl));
- 10') C₁₋₅alkylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 11') C₂₋₅alkenylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 12') C₂₋₅alkynylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));

13') C₁₋₅alkylX⁶R³⁸ (wherein X⁶ represents -O-, -S-, -SO-, -SO₂-, -NR⁴³CO-, -CONR⁴⁴-, -SO₂NR⁴⁵-, -NR⁴⁶SO₂- or -NR⁴⁷- (wherein R⁴³, R⁴⁴, R⁴⁵, R⁴⁶ and R⁴⁷ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R³⁸ is as defined hereinbefore in (9'));

- 14') C_{2-5} alkenyl X^7R^{38} (wherein X^7 represents -O-, -S-, -SO-, -SO₂-, -NR⁴⁸CO-, -CONR⁴⁹-, -SO₂NR⁵⁰-, -NR⁵¹SO₂- or -NR⁵²- (wherein R⁴⁸, R⁴⁹, R⁵⁰, R⁵¹ and R⁵² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R³⁸ is as defined hereinbefore in (9'));
- 15') C_{2-5} alkynyl X^8R^{38} (wherein X^8 represents -O-, -S-, -SO-, -SO₂-, -NR⁵³CO-, -CONR⁵⁴-, -SO₂NR⁵⁵-, -NR⁵⁶SO₂- or -NR⁵⁷- (wherein R⁵³, R⁵⁴, R⁵⁵, R⁵⁶ and R⁵⁷ each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{38} is as defined hereinbefore in (9'));
- 16') C_{1-3} alkyl X^9C_{1-3} alkyl R^{38} (wherein X^9 represents -O-, -S-, -SO-, -SO₂-, -NR⁵⁸CO-, -CONR⁵⁹-, -SO₂NR⁶⁰-, -NR⁶¹SO₂- or -NR⁶²- (wherein R⁵⁸, R⁵⁹, R⁶⁰, R⁶¹ and R⁶² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R³⁸ is as defined hereinbefore (in 9')); and
- 17') C₁₋₃alkylX⁹C₁₋₃alkylR³⁷ (wherein X⁹ and R³⁷ are as defined hereinbefore (in 5')).

7. (Currently Amended) The method use according to any one of claims 1 to 5 4, wherein the compound of formula (II) is a compound of formula (III)

$$R^7$$
 R^5
 R^6
 R^3
 R^4
(III)

or a salt, ester, amide or prodrug thereof;

where X, R¹, R², R³, R⁴, R⁶ and R⁷ are as defined in claim 1 and R^{5'} is an optionally substituted substituted hydrocarbyl, optionally substituted heterocyclyl or optionally substituted alkoxy group, provided that R^{5'} is other than ethenyl substituted by a carboxy group or an amide or sulphonamide derivative thereof.

8. (Currently Amended) The <u>method use</u> according to claim 7, wherein the compound of formula (III) is a compound of formula (IIIA) which is of structure (III) as shown above, or a salt, ester or amide thereof; and

where X is O, or S, S(O) or S(O)₂, or NR⁸ where R⁸ is hydrogen or C₁₋₆alkyl; R⁵ is hydrogen or optionally substituted hydrocarbyl or optionally substituted heterocyclyl;

and R⁶ and R⁷ are independently selected from hydrogen, halo, C₁₋₄alkyl, C₁₋₄ alkoxy, C₁₋₄alkoxymethyl, di(C₁₋₄alkoxy)methyl, C₁₋₄alkanoyl, trifluoromethyl, cyano, amino, C₂₋₅alkenyl, C₂₋₅alkynyl, a phenyl group, a benzyl group or a 5-6-membered heterocyclic group with 1-3 heteroatoms, selected independently from O, S and N, which heterocyclic group may be aromatic or non-aromatic and may be saturated (linked via a ring carbon or nitrogen atom) or unsaturated (linked via a ring carbon atom), and which phenyl, benzyl or heterocyclic group may bear on one or more ring carbon atoms up to 5 substituents selected from hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl,

cyano, amino, nitro, C_{2-4} alkanoyl, C_{1-4} alkanoylamino, C_{1-4} alkoxycarbonyl, C_{1-4} alkylsulphanyl, C_{1-4} alkylsulphanyl, C_{1-4} alkylsulphonyl, carbamoyl, $N-C_{1-4}$ alkylcarbamoyl, $N-C_{1-4}$ alkylcarbamoyl, $N-C_{1-4}$ alkylaminosulphonyl, $N-C_{1-4}$ alkylaminosulphonyl, $N-C_{1-4}$ alkylaminosulphonyl, $N-C_{1-4}$ alkylsulphonylamino, and a saturated heterocyclic group selected from morpholino, thiomorpholino, pyrrolidinyl, piperazinyl, piperidinyl, imidazolidinyl and pyrazolidinyl, which saturated heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C_{1-3} alkyl, C_{1-3} alkoxy, C_{1-3} alkanoyloxy, trifluoromethyl, cyano, amino, nitro and C_{1-4} alkoxycarbonyl, and

 R^1 , R^2 , R^3 , R^4 are independently selected from, halo, cyano, nitro, trifluoromethyl, C_{1-3} alkyl, -NR¹²R¹³ (wherein R¹² and R¹³, which may be the same or different, each represents hydrogen or C_{1-3} alkyl), or -X¹R¹⁴ [[(]]wherein X¹ represents a direct bond, -O-, -CH₂-, -OCO-, carbonyl, -S-, -SO-, -SO₂-, -NR¹⁵CO-, -CONR¹⁶-, -SO₂NR¹⁷-, -NR¹⁸SO₂- or -NR¹⁹- (wherein R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl), and R¹⁴ is selected from one of the following groups:

- 1') hydrogen or C₁₋₅alkyl which may be unsubstituted or which may be substituted with one or more groups selected from hydroxy, fluoro or amino,
- 2') C_{1-5} alkyl X^2COR^{20} (wherein X^2 represents -O- or -NR²¹- (in which R²⁰ represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R²¹ represents C_{1-3} alkyl, -NR²²R²³ or -OR²⁴ (wherein R²², R²³ and R²⁴ which may be the same or different each represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl));
- 3') C₁₋₅alkylX³R²⁵ (wherein X³ represents -O-, -S-, -SO-, -SO₂-, -OCO-, -NR²⁶CO-, -CONR²⁷-, -SO₂NR²⁸-, -NR²⁹SO₂- or -NR³⁰- (wherein R²⁶, R²⁷, R²⁸, R²⁹ and R³⁰ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkyl or C₁₋₃alkyl) and R²⁵ represents hydrogen, C₁₋₃alkyl, cyclopentyl, cyclohexyl or a 5-6-membered saturated heterocyclic group with 1-2 heteroatoms, selected independently from O, S and N, which C₁₋₃alkyl group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno and C₁₋₄alkoxy and which cyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl and C₁₋₄alkoxy);
- 4') C₁₋₅alkylX⁴C₁₋₅alkylX⁵R³¹ (wherein X⁴ and X⁵ which may be the same or different are each -O-, -S-, -SO₂-, -NR³²CO-, -CONR³³-, -SO₂NR³⁴-, -NR³⁵SO₂- or-NR³⁶-

(wherein R^{32} , R^{33} , R^{34} , R^{35} and R^{36} each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkyl) and R^{31} represents hydrogen or C_{1-3} alkyl);

- 5') R³⁷ (wherein R³⁷ is a 5-6-membered saturated heterocyclic group (linked via carbon or nitrogen) with 1-2 heteroatoms, selected independently from O, S and N, which heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, C₁₋₄alkoxyC₁₋₄alkyl and C₁₋₄alkylsulphonylC₁₋₄alkyl);
- 6') C₁₋₅alkylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 7') C₂₋₅alkenylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 8') C₂₋₅alkynylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 9°) R³⁸ (wherein R³⁸ represents a pyridone group, a phenyl group or a 5-6-membered aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, phenyl or aromatic heterocyclic group may carry up to 5 substituents on an available carbon atom selected from hydroxy, halogeno, amino, C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄hydroxyalkyl, C₁₋₄aminoalkyl, C₁₋₄alkylamino, C₁₋₄hydroxyalkoxy, carboxy, trifluoromethyl, cyano, -CONR³⁹R⁴⁰ and -NR⁴¹COR⁴² (wherein R³⁹, R⁴⁰, R⁴¹ and R⁴², which may be the same or different, each represents hydrogen, C₁₋₄alkyl or C₁₋₃alkoxyC₂₋₃alkyl));
- 10') C₁₋₅alkylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 11') C₂₋₅alkenylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 12') C₂₋₅alkynylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 13') C₁₋₅alkylX⁶R³⁸ (wherein X⁶ represents -O-, -S-, -SO-, -SO₂-, -NR⁴³CO-, -CONR⁴⁴-, -SO₂NR⁴⁵-, -NR⁴⁶SO₂- or -NR⁴⁷- (wherein R⁴³, R⁴⁴, R⁴⁵, R⁴⁶ and R⁴⁷ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R³⁸ is as defined hereinbefore in (9'));
- 14') C_{2-5} alkenyl X^7R^{38} (wherein X^7 represents -O-, -S-, -SO-, -SO₂-, -NR⁴⁸CO-, -CONR⁴⁹-, -SO₂NR⁵⁰-, -NR⁵¹SO₂- or -NR⁵²- (wherein R⁴⁸, R⁴⁹, R⁵⁰, R⁵¹ and R⁵² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{38} is as defined hereinbefore in (9'));
- 15') C_{2-5} alkynyl X^8R^{38} (wherein X^8 represents -O-, -S-, -SO-, -SO₂-, -NR⁵³CO-, -CONR⁵⁴-, -SO₂NR⁵⁵-, -NR⁵⁶SO₂- or -NR⁵⁷- (wherein R⁵³, R⁵⁴, R⁵⁵, R⁵⁶ and R⁵⁷ each

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independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R³⁸ is as defined hereinbefore in (9'));

- 16') C_{1-3} alkyl X^9C_{1-3} alkyl R^{38} (wherein X^9 represents -O-, -S-, -SO-, -SO₂-, -NR⁵⁸CO-, -CONR⁵⁹-, -SO₂NR⁶⁰-, -NR⁶¹SO₂- or -NR⁶²- (wherein R⁵⁸, R⁵⁹, R⁶⁰, R⁶¹ and R⁶² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R³⁸ is as defined hereinbefore in (9')); and
- 17') C₁₋₃alkylX⁹C₁₋₃alkylR³⁷ (wherein X⁹ and R³⁷ are as defined hereinbefore (in 5')-in the preparation of a medicament for use in the inhibtion of aurora 2 kinase.
- 9. (Currently Amended) The <u>method</u> use according to any one of claims 1 to 5 4, where wherein the compound of formula (I) is a compound of formula (IV)

$$R^{3}$$
 R^{4}
 R^{4}
 R^{3}

or a salt, ester, amide or prodrug thereof;

where R¹, R², R³, R⁴ and X are as defined in claim 1 and R^{a'} is a 3-quinoline group or a group of sub-formula (i)

where R^6 and R^7 are as defined in relation to formula (I) and $R^{5''}$ is halogen or a group of formula $NR^{10}R^{10'}$ where R^{10} and $R^{10'}$ are as defined in claim 1.

10. (Currently Amended) The method use according to claim 9, wherein the compound of formula (VI) is a compound of formula (IVA) which is of structure (IV) as shown above, or a salt, ester or amide thereof; where X is O, or S, S(O) or S(O)₂, or NR⁸ where R⁸ is hydrogen or C₁₋₆alkyl; R^{a'} is a 3-quinoline group or a group of sub-formula (i)

where $R^{5"}$ is halogen or a group of formula $NR^{10}R^{10"}$ where R^{10} and $R^{10"}$ are selected from hydrogen or optionally substituted hydrocarbyl or R¹⁰ and R¹⁰ together with the nitrogen atom to which they are attached form a heterocyclic ring which may optionally contain further heteroatoms or an azo group of formula -N=N-R¹¹ where R¹¹ is an optionally substituted hydrocarbyl group or optionally substituted heterocyclic group; R⁶ and R⁷ are independently selected from hydrogen, halo, C₁₋₄alkyl halo, C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄alkoxymethyl, di(C₁₋₄alkoxy)methyl, C₁₋₄alkanoyl, trifluoromethyl, cyano, amino, C2-5alkenyl, C2-5alkynyl, a phenyl group, a benzyl group or a 5-6-membered heterocyclic group with 1-3 heteroatoms, selected independently from O, S and N, which heterocyclic group may be aromatic or non-aromatic and may be saturated (linked via a ring carbon or nitrogen atom) or unsaturated (linked via a ring carbon atom), and which phenyl, benzyl or heterocyclic group may bear on one or more ring carbon atoms up to 5 substituents selected from hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro, C₂₋₄alkanoyl, C₁₋₄alkanoylamino, C₁₋₄alkoxycarbonyl, C₁₋₄alkylsulphanyl, C₁₋₄alkylsulphinyl, C_{14} alkylsulphonyl, carbamoyl, \underline{N} - C_{14} alkylcarbamoyl, \underline{N} - $di(C_{14}$ alkyl)carbamoyl, aminosulphonyl, \underline{N} - C_{1-4} alkylaminosulphonyl, \underline{N} , \underline{N} -di(C_{1-4} alkyl)aminosulphonyl, C₁₋₄alkylsulphonylamino, and a saturated heterocyclic group selected from morpholino, thiomorpholino, morpholino, thiomorpholino, pyrrolidinyl, piperazinyl, piperidinyl, imidazolidinyl and pyrazolidinyl, which saturated heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro and C₁₋₄alkoxycarbonyl, and

R¹, R², R³, R⁴ are independently selected from, halo, cyano, nitro, trifluoromethyl, C₁₋₃alkyl, -NR¹²R¹³ (wherein R¹² and R¹⁴, which may be the same or different, each represents hydrogen or C₁₋₃alkyl), or -X¹R¹⁴ [[(]] wherein X¹ represents a direct bond, -O-, -CH₂-, -OCO-, carbonyl, -S-, -SO-, -SO₂-, -NR¹⁵CO-, -CONR¹⁶-, -SO₂NR¹⁷-, -NR¹⁸SO₂- or -NR¹⁹- (wherein R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl), and R¹⁴ is selected from one of the following groups:

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- 1') hydrogen or C₁₋₅alkyl which may be unsubstituted or which may be substituted with one or more groups selected from hydroxy, fluoro or amino,
- 2') C_{1-5} alkyl X^2COR^{20} (wherein X^2 represents -O- or -NR²¹- (in which R²⁰ represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R²¹ represents C_{1-3} alkyl, -NR²²R²³ or -OR²⁴ (wherein R²², R²³ and R²⁴ which may be the same or different each represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl));
- 3') C₁₋₅alkylX³R²⁵ (wherein X³ represents -O-, -S-, -SO-, -SO₂-, -OCO-, -NR²⁶CO-, -CONR²⁷-, -SO₂NR²⁸-, -NR²⁹SO₂- or -NR³⁰- (wherein R²⁶, R²⁷, R²⁸, R²⁹ and R³⁰ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R²⁵ represents hydrogen, C₁₋₃alkyl, cyclopentyl, cyclohexyl or a 5-6-membered saturated heterocyclic group with 1-2 heteroatoms, selected independently from O, S and N, which C₁₋₃alkyl group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno and C₁₋₄alkoxy and which cyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl and C₁₋₄alkoxy);
- 4') C_{1-5} alkyl X^4C_{1-5} alkyl X^5R^{31} (wherein X^4 and X^5 which may be the same or different are each -O-, -S-, -SO-, -SO₂-, -NR³²CO-, -CONR³³-, -SO₂NR³⁴-, -NR³⁵SO₂- or -NR³⁶- (wherein R³², R³³, R³⁴, R³⁵ and R³⁶ each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R³¹ represents hydrogen or C_{1-3} alkyl);
- 5') R³⁷ (wherein R³⁷ is a 5-6-membered saturated heterocyclic group (linked via carbon or nitrogen) with 1-2 heteroatoms, selected independently from O, S and N, which heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, C₁₋₄alkoxyC₁₋₄alkyl and C₁₋₄alkylsulphonylC₁₋₄alkyl);
- 6') C₁₋₅alkylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 7') C₂₋₅alkenylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));

- 8') C₂₋₅alkynylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 9') R³⁸ (wherein R³⁸ represents a pyridone group, a phenyl group or a 5-6-membered aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, phenyl or aromatic heterocyclic group may carry up to 5 substituents on an available carbon atom selected from hydroxy, halogeno, amino, C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄hydroxyalkyl, C₁₋₄aminoalkyl, C₁₋₄alkylamino, C₁₋₄hydroxyalkoxy, carboxy, trifluoromethyl, cyano, -CONR³⁹R⁴⁰ and -NR⁴¹COR⁴² (wherein R³⁹, R⁴⁰, R⁴¹ and R⁴², which may be the same or different, each represents hydrogen, C₁₋₄alkyl or C₁₋₃alkoxyC₂₋₃alkyl));
- 10') C₁₋₅alkylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 11') C₂₋₅alkenylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 12') C₂₋₅alkynylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 13') C₁₋₅alkylX⁶R³⁸ (wherein X⁶ represents -O-, -S-, -SO-, -SO₂-, -NR⁴³CO-, -CONR⁴⁴-, -SO₂NR⁴⁵-, -NR⁴⁶SO₂- or -NR⁴⁷- (wherein R⁴³, R⁴⁴, R⁴⁵, R⁴⁶ and R⁴⁷ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R³⁸ is as defined hereinbefore in (9'));
- 14') C_{2-5} alkenyl X^7R^{38} (wherein X^7 represents -O-, -S-, -SO-, -SO₂-, -NR⁴⁸CO-, -CONR⁴⁹-, -SO₂NR⁵⁰-, -NR⁵¹SO₂- or -NR⁵²- (wherein R⁴⁸, R⁴⁹, R⁵⁰, R⁵¹ and R⁵² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{38} is as defined hereinbefore in (9'));
- 15') C₂₋₅alkynylX⁸R³⁸ (wherein X⁸ represents -O-, -S-, -SO-, -SO₂-, -NR⁵³CO-, -CONR⁵⁴-, -SO₂NR⁵⁵-, -NR⁵⁶SO₂- or -NR⁵⁷- (wherein R⁵³, R⁵⁴, R⁵⁵, R⁵⁶ and R⁵⁷ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R³⁸ is as defined hereinbefore in (9'));
- 16') C_{1-3} alkyl X^9C_{1-3} alkyl R^{38} (wherein X^9 represents -O-, -S-, -SO-, -SO₂-, -NR⁵⁸CO-, -CONR⁵⁹-, -SO₂NR⁶⁰-, -NR⁶¹SO₂- or -NR⁶²- (wherein R⁵⁸, R⁵⁹, R⁶⁰, R⁶¹ and R⁶² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R³⁸ is as defined hereinbefore in (9')); and
- 17') C₁₋₃alkylX⁹C₁₋₃alkylR³⁷ (wherein X⁹ and R³⁷ are as defined hereinbefore (in 5').

11. (Currently Amended) A compound of formula (IIB)

$$R^{66}$$
 R^{67}
 R^{6}
 R^{6}

or a salt, ester, amide or prodrug thereof where X, Z, R^9 , R^6 and R^7 and R^8 are as defined in claim 1

X is O, or S, S(O) or S(O)₂, NH or NR⁸ where R^8 is hydrogen or C_{1-6} alkyl, Z is O or S,

R⁹ is hydrogen or optionally substituted hydrocarbyl or optionally substituted heterocyclyl,

R⁶ and R⁷ are independently selected from hydrogen, halo, C₁₋₄alkylhalo, C₁₋₄alkyl, C₁₋₄ alkoxy, C₁₋₄alkoxymethyl, di(C₁₋₄alkoxy)methyl, C₁₋₄alkanoyl, trifluoromethyl, cyano, amino, C₂₋₅alkenyl, C₂₋₅alkynyl, a phenyl group, a benzyl group or a 5-6-membered heterocyclic group with 1-3 heteroatoms, selected independently from O, S and N, which heterocyclic group may be aromatic or non-aromatic and may be saturated (linked via a ring carbon or nitrogen atom) or unsaturated (linked via a ring carbon atom), and which phenyl, benzyl or heterocyclic group may bear on one or more ring carbon atoms up to 5 substituents selected from hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro, C₂₋₄alkanoyl, C₁₋₄alkanoylamino, C₁₋₄alkoxycarbonyl, C₁₋₄alkylsulphanyl, C₁₋₄alkylsulphinyl, C₁₋₄alkylsulphonyl, carbamoyl, N-C₁₋₄alkylcarbamoyl, N,N-di(C₁₋₄alkyl)carbamoyl, aminosulphonyl, N₁C₁₋₄alkylaminosulphonyl, N,N-di(C₁₋₄alkyl)aminosulphonyl, C₁₋₄alkylsulphonylamino, and a saturated heterocyclic group selected from morpholino, thiomorpholino, pyrrolidinyl, piperazinyl, piperidinyl, imidazolidinyl and pyrazolidinyl, which saturated heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno,

 C_{1-3} alkyl, C_{1-3} alkoxy, C_{1-3} alkanoyloxy, trifluoromethyl, cyano, amino, nitro and C_{1-4} alkoxycarbonyl,

 R^1 , R^4 are independently selected from halogeno, cyano, nitro, C_{1-3} alkylsulphanyl, $-N(OH)R^{12}$ (wherein R^{12} is hydrogen, or C_{1-3} alkyl), or $R^{14}X^1$ - (wherein X^1 represents a direct bond, -O-, $-CH_2$ -, -OC(O)-, -C(O)-, -S-, -SO-, $-SO_2$ -, $-NR^{15}C(O)$ -, $-C(O)NR^{16}$ -, $-SO_2NR^{17}$ -, $-NR^{18}SO_2$ - or $-NR^{19}$ - (wherein R^{15} , R^{16} , R^{17} , R^{18} and R^{19} each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl)), and R^{14} is hydrogen, optionally substituted hydrocarbyl, optionally substituted heterocyclyl or optionally substituted alkoxy $\frac{1}{3}$

and n is 0, or an integer of from 1 to 6,

R⁶⁶ is halo, cyano, nitro, trifluoromethyl, C₁₋₃alkyl, -NR¹²R¹³ (wherein R¹² and R¹³, which may be the same or different, each represents hydrogen or C₁₋₃alkyl), or a group -X¹R¹⁴ where X¹ and R¹⁴ are as defined in claim 1; (wherein X¹ represents a direct bond, -O-, -CH₂-, -OC(O)-, -C(O)-, -S-, -SO-, -SO₂-, -NR¹⁵C(O)-, -C(O)NR¹⁶-, -SO₂NR¹⁷-, -NR¹⁸SO₂- or -NR¹⁹- (wherein R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl)), and R¹⁴ is hydrogen, optionally substituted hydrocarbyl, optionally substituted heterocyclyl or optionally substituted alkoxy; and R⁶⁷ is C₁₋₆ alkoxy optionally substituted substituted by fluorine or with a group X¹R³⁸ in which X¹ (wherein X¹ represents a direct bond, -O-, -CH₂-, -OC(O)-, -C(O)-, -S-, -SO-, -SO₂-, -NR¹⁵C(O)-, -C(O)NR¹⁶-, -SO₂NR¹⁷-, -NR¹⁸SO₂- or -NR¹⁹- (wherein R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl)), and R³⁸ are as defined in claim 1 and R³⁸ is a pyridone group, an aryl group or an aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, aryl or aromatic heterocyclic group may be substituted by one or more functional groups or by a hydrocarbyl group optionally substituted by one or more functional groups or heterocyclyl groups, or by a heterocyclyl group optionally susbsituted by one or more functional groups or hydrocarbyl groups, or R⁶⁷ is 3-morpholinopropoxy; provided that at least one of R⁶⁶ and R⁶⁷ is other than unsubtituted unsubstituted alkoxy methoxy; or a compound of formula (IIIB)

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$$R^{66}$$
 R^{66}
 R^{67}
 R^{67}
 R^{68}
 R^{68}
 R^{69}
 R^{69}

or a salt, ester, amide or prodrug thereof,

where X, R^4 , R^1 , R^6 and R^7 are as defined in claim land above, and R^{66} are R^{67} are as defined above provided that R^{67} is other than unsubstituted alkoxy; and $R^{5'}$ is benzyl or cyanobenzyl or $R^{5'}$ is optionally substituted phenyl, where the optional substituents include C_{1-3} alkyl groups as well as nitro and halo or $R^{5'}$ is ethynyl optionally substituted with trimethylsilyl groups, carboxy, or an C_{1-6} alkyl ester thereof; as defined in claim 7:

a compound of formula (IVB)

$$\begin{array}{c|c}
R^7 \\
R^6 \\
R^{66} \\
R^{67} \\
R^4
\end{array}$$

$$\begin{array}{c|c}
R^7 \\
R^6 \\
R^6 \\
R^6 \\
R^6 \\
R^4
\end{array}$$

$$\begin{array}{c|c}
R^7 \\
R^6 \\
R^6 \\
R^6 \\
R^6 \\
R^7 \\
R^8 \\
R^9 \\
R^9$$

or a salt, ester, amide or prodrug thereof, .

where X, R¹, R⁴, R⁶ and R⁷ and n are as defined in claim 1 above, R⁵" is a group of formula NR¹⁰R¹⁰" where R¹⁰ and R¹⁰" are independently selected from hydrogen, optionally substituted hydrocarbyl or optionally substituted heterocyclyl, or R¹⁰ and R¹⁰"

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together with the nitrogen atom to which they are attached form an optionally substituted heterocyclic ring which may optionally contain further heteroatoms, or an azo group of formula -N=N-R¹¹ where R¹¹ is an optionally substituted hydrocarbyl group or optionally substituted heterocyclyl group, or R^{5"} is a group -N=NR¹¹ where R¹¹ is as defined above, as defined in claim 9 and R⁶⁶ are R⁶⁷ are as defined above provided that R⁶⁷ is other than unsubstituted alkoxy;

or

a compound of formula (IVC)

$$R^2$$
 R^3
 R^4
(IVC)

or a salt, ester, amide or prodrug thereof, where R^1 , R^2 , R^3 , R^4 and X are as defined in claim 1.

12. (Currently Amended) A method of preparing a compound according to claim 11, which comprises reacting a compound of formula (VII)

where R¹, R², R³, and R⁴ are respectively equivalent to a group R¹, R⁶⁶, R⁶⁷ and R⁴ as defined in claim 11 or a precursor thereof, and R⁸⁵ is a leaving group, with a compound of formula (VIII)

where X, is as defined in claim 1, and Ra" is selected from

$$Z \longrightarrow (CH_2)_n \longrightarrow R^9$$

where Z, n, R^6 , R^7 and R^9 are as defined in claim $\frac{1}{11}$,

R^{5'} is as defined in claim 7-an optionally substituted hydrocarbyl, optionally substituted heterocyclyl or optionally substituted alkoxy group, provided that R^{5'} is other than ethenyl substituted by a carboxy group or an amide or sulphonamide derivative thereof, and R^{5''} is as defined in claim 9- halogen or a group of formula NR¹⁰R^{10'} where R¹⁰ and R^{10'} are as defined in claim 1 independently selected from hydrogen, optionally substituted hydrocarbyl or optionally substituted heterocyclyl, or R¹⁰ and R^{10'} together with the nitrogen atom to which they are attached form an optionally substituted heterocyclic ring which may optionally contain further heteroatoms, or an azo group of formula -N=N-R¹¹ where R¹¹ is an optionally substituted hydrocarbyl group or optionally substituted heterocyclyl group;

and thereafter if desired or necessary converting a group R^{12} , R^{22} , R^{32} or R^{41} to a group R^{4} , R^{2} , R^{3} and R^{4} respectively or to a different such group.

13-14. (Canceled)

- 15. (Currently Amended) A pharmaceutical composition comprising a compound of formula (IIB), (IIIB), (IVB) or (IVC) as defined in claim 11, or a salt, ester, amide or prodrug thereof, in combination with at a pharmaceutically acceptable carrier.
- (New) A compound according to claim 11, selected from:
 a compound of formula (IIB) or a salt, ester, amide or prodrug thereof,
 wherein X is O, S, S(O) or S(O)₂, or NR⁸ where R⁸ is hydrogen or C₁₋₆alkyl;
 Z is O or S,
 n is 0, or an integer from 1 to 6,
 R¹ and R⁴ are both hydrogen,

 R^9 is hydrogen, ethenyl, optionally substituted phenyl, optionally substituted pyridyl, or optionally substituted furanyl where optional substitutents for R^9 groups are C_{1-3} alkoxy, C_{1-3} alkyl, halo or nitro,

R⁶ and R⁷ are independently selected from hydrogen, halo, C₁₋₄alkyl, C₁₋₄ alkoxy, C_{1.4}alkoxymethyl, di(C_{1.4}alkoxy)methyl, C_{1.4}alkanoyl, trifluoromethyl, cyano, amino, C₂₋₅alkenyl, C₂₋₅alkynyl, a phenyl group, a benzyl group or a 5-6-membered heterocyclic group with 1-3 heteroatoms, selected independently from O, S and N, which heterocyclic group may be aromatic or non-aromatic and may be saturated (linked via a ring carbon or nitrogen atom) or unsaturated (linked via a ring carbon atom), and which phenyl, benzyl or heterocyclic group may bear on one or more ring carbon atoms up to 5 substituents selected from hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro, C₂₋₄alkanoyl, C₁₋₄alkanoylamino, C₁₋₄alkoxycarbonyl, C₁₋₄alkylsulphanyl, C₁₋₄alkylsulphinyl, C₁₋₄alkylsulphonyl, carbamoyl, N-C₁₋₄alkylcarbamoyl, N,N-di(C₁₋₄alkyl)carbamoyl, aminosulphonyl, \underline{N} - C_{1-4} alkylaminosulphonyl, \underline{N} , \underline{N} -di(C_{1-4} alkyl)aminosulphonyl, C_{1-4} alkylsulphonylamino, and a saturated heterocyclic group selected from morpholino, thiomorpholino, pyrrolidinyl, piperazinyl, piperidinyl, imidazolidinyl and pyrazolidinyl, which saturated heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino, nitro and

 R^{66} is halo, cyano, nitro, trifluoromethyl, $C_{1\text{-3}}$ alkyl, $-NR^{12}R^{13}$ (wherein R^{12} and R^{13} , which may be the same or different, each represent hydrogen or $C_{1\text{-3}}$ alkyl), or a group $-X^1R^{14}$ where X^1 represents a direct bond, -O-, $-CH_2$ -, -OC(O)-, -C(O)-, -S-, -SO-, $-SO_2$ -, $-NR^{15}C(O)$ -, $-C(O)NR^{16}$ -, $-SO_2NR^{17}$ -, $-NR^{18}SO_2$ - or $-NR^{19}$ - (wherein R^{15} , R^{16} , R^{17} , R^{18} and R^{19} each independently represent hydrogen, $C_{1\text{-3}}$ alkyl or $C_{1\text{-3}}$ alkoxy $C_{2\text{-3}}$ alkyl) and R^{14} is a group (1) where group (1) is hydrogen or $C_{1\text{-5}}$ alkyl which may be unsubstituted or which may be substituted with one or more groups selected from hydroxy, oxiranyl, fluoro, chloro, bromo and amino (including $C_{1\text{-3}}$ alkyl and trifluoromethyl); or a group (10) where group (10) is $-R^gR^{38}$ and wherein R^{38} represents a pyridone group, a phenyl group or a 5-6-membered aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, phenyl or aromatic heterocyclic group may carry up to 5 substituents selected from hydroxy, nitro, halogeno,

C₁₋₄alkoxycarbonyl,

amino, C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄hydroxyalkyl, C₁₋₄aminoalkyl, C₁₋₄alkylamino, C₁₋₄hydroxyalkoxy, oxo, cyanoC₁₋₄alkyl, cyclopropyl, C₁₋₄alkylsulphonylC₁₋₄alkyl, C₁₋₄alkyl, C₁₋₄alkyl), C₁₋₄alkylamino, C₁₋₄alkylaminoC₁₋₄alkyl, C₁₋₄alkanoyl, di(C₁₋₄alkyl)aminoC₁₋₄alkyl, C₁₋₄alkylaminoC₁₋₄alkoxy, di(C₁₋₄alkyl)aminoC₁₋₄alkoxy, carboxy, carboxamido, trifluoromethyl, cyano, -C(O)NR³⁹R⁴⁰, -NR⁴¹C(O)R⁴² (wherein R³⁹, R⁴⁰, R⁴¹ and R⁴², which may be the same or different, each represents hydrogen, C₁₋₄alkyl, hydroxyC₁₋₄alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and a group -(-O-)_f(C₁₋₄alkyl)_gringD (wherein f is 0 or 1, g is 0 or 1 and ring D is a cyclic group selected from C₃₋₆cycloalkyl, aryl or 5-6-membered saturated or unsaturated heterocyclic group with 1-2 heteroatoms, selected independently from O, S and N, which cyclic group may bear one or more substituents selected from halo and C₁₋₄alkyl); and wherein R^g is a C₁₋₈alkylene group optionally substituted by one or more substituents selected from hydroxy, halogeno and amino,

and R⁶⁷ is 3-morpholinopropoxy;

Ωt

a compound of formula (IIIB) or a salt, ester, amide or prodrug thereof, wherein X, R¹, R⁴, R⁶, R⁷ and R⁶⁶ are as defined above R^{67} is C_{1-6} alkoxy optionally substituted by with fluorine or a group X^1R^{38} in which X^1 represents a direct bond, -O-, -CH₂-, -OCO-, carbonyl, -S-, -SO-, -SO₂-, -NR¹²CO-, -CONR¹²-, -SO₂NR¹²-, -NR¹³SO₂- or -NR¹⁴- (wherein R¹², R¹³ and R¹⁴ each independently represents hydrogen, $C_{1\text{--}3}$ alkyl or $C_{1\text{--}3}$ alkoxy $C_{2\text{--}3}$ alkyl) and R^{38} represents a pyridone group, a phenyl group or a 5-6-membered aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, phenyl or aromatic heterocyclic group may carry up to 5 substituents on an available carbon atom selected from hydroxy, halogeno, amino, C1-4alkyl, C1-4alkoxy, C₁₋₄hydroxyalkyl, C₁₋₄aminoalkyl, C₁₋₄alkylamino, C₁₋₄hydroxyalkoxy, carboxy, trifluoromethyl, cyano, -CONR³⁹R⁴⁰ and -NR⁴¹COR⁴² (wherein R³⁹, R⁴⁰, R⁴¹ and R⁴², which may be the same or different, each represents hydrogen, C14alkyl or C₁₋₃alkoxyC₂₋₃alkyl); wherein at least R⁶⁷ is other than unsubstituted alkoxy; and R⁵' is benzyl and cyanobenzyl or R⁵' is optionally substituted phenyl, where the optional substituents include C₁₋₃ alkyl groups as well as nitro and halo or R^{5'} is ethynyl optionally substituted with trimethylsilyl groups, carboxy, or an C₁₋₆ alkyl ester thereof

or

a compound of formula (IVB) or a salt, ester, amide or prodrug thereof, where X, R^1 , R^4 , R^6 and R^7 are as defined in relation to formula (IIB) above $R^{5^{\prime\prime\prime}}$ a group of formula $NR^{10}R^{10^\prime}$ where R^{10} and R^{10^\prime} are independently selected from hydrogen, alkyl or heterocyclyl, or R^{10} and R^{10^\prime} together with the nitrogen atom to which they are attached form a morpholino or terahydropyridyl or $R^{5^\prime\prime}$ is a group -N=NR¹¹ where R^{11} is alkyl or phenyl or heterocyclyl

and R⁶⁶ are R⁶⁷ are as defined in relation to formula (IIIB) above;

or

a compound of formula (IVC) or a salt, ester, amide or prodrug thereof, where X, R¹, R⁴ are as defined in relation to formula (IIB) above R² and R³ are independently selected from, halo, cyano, nitro, trifluoromethyl, C₁₋₃alkyl, -NR⁹R¹⁰ (wherein R⁹ and R¹⁰, which may be the same or different, each represents hydrogen or C₁₋₃alkyl), or -X¹R¹⁴ (wherein X¹ represents a direct bond, -O-, -CH₂-, -OCO-, carbonyl, -S-, -SO-, -SO₂-, -NR¹²CO-, -CONR¹²-, -SO₂NR¹²-, -NR¹³SO₂- or -NR¹⁴- (wherein R¹², R¹³ and R¹⁴ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl), and R¹⁴ is selected from one of the following groups:

- 1') hydrogen or C₁₋₅alkyl which may be unsubstituted or which may be substituted with one or more groups selected from hydroxy, fluoro or amino,
- 2') C_{1-5} alkyl X^2COR^{20} (wherein X^2 represents -O- or -NR 21 (in which R^{20} represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{21} represents C_{1-3} alkyl, -NR $^{22}R^{23}$ or -OR 24 (wherein R^{22} , R^{23} and R^{24} which may be the same or different each represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl);
- 3') C_{1-5} alkyl X^3R^{25} (wherein X^3 represents -O-, -S-, -SO-, -SO₂-, -OCO-, -NR²⁶CO-, -CONR²⁷-, -SO₂NR²⁸-, -NR²⁹SO₂- or -NR³⁰- (wherein R²⁶, R²⁷, R²⁸, R²⁹ and R³⁰ each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R²⁵ represents hydrogen, C_{1-3} alkyl, cyclopentyl, cyclohexyl or a 5-6-membered saturated heterocyclic group with 1-2 heteroatoms, selected independently from O, S and N, which C_{1-3} alkyl group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno and C_{1-4} alkoxy and which cyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C_{1-4} alkyl, C_{1-4} hydroxyalkyl and C_{1-4} alkoxy);

4') C_{1-5} alkyl X^4C_{1-5} alkyl X^5R^{31} (wherein X^4 and X^5 which may be the same or different are each -O-, -S-, -SO-, -SO₂-, -NR³²CO-, -CONR³³-, -SO₂NR³⁴-, -NR³⁵SO₂- or NR³⁶- (wherein R³², R³³, R³⁴, R³⁵ and R³⁶ each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R³¹ represents hydrogen or C_{1-3} alkyl);

- 5') R³⁷ (wherein R³⁷ is a 5-6-membered saturated heterocyclic group (linked via carbon or nitrogen) with 1-2 heteroatoms, selected independently from O, S and N, which heterocyclic group may bear 1 or 2 substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, C₁₋₄alkoxyC₁₋₄alkyl and C₁₋₄alkylsulphonylC₁₋₄alkyl);
- 6') C₁₋₅alkylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 7') C₂₋₅alkenylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 8') C₂₋₅alkynylR³⁷ (wherein R³⁷ is as defined hereinbefore in (5'));
- 9') R³⁸ (wherein R³⁸ represents a pyridone group, a phenyl group or a 5-6-membered aromatic heterocyclic group (linked via carbon or nitrogen) with 1-3 heteroatoms selected from O, N and S, which pyridone, phenyl or aromatic heterocyclic group may carry up to 5 substituents on an available carbon atom selected from hydroxy, halogeno, amino, C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄hydroxyalkyl, C₁₋₄aminoalkyl, C₁₋₄alkylamino, C₁₋₄hydroxyalkoxy, carboxy, trifluoromethyl, cyano, -CONR³⁹R⁴⁰ and -NR⁴¹COR⁴² (wherein R³⁹, R⁴⁰, R⁴¹ and R⁴², which may be the same or different, each represents hydrogen, C₁₋₄alkyl or C₁₋₃alkoxyC₂₋₃alkyl));
- 10') C₁₋₅alkylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 11') C₂₋₅alkenylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 12') C₂₋₅alkynylR³⁸ (wherein R³⁸ is as defined hereinbefore in (9'));
- 13') C₁₋₅alkylX⁶R³⁸ (wherein X⁶ represents -O-, -S-, -SO-, -SO₂-, -NR⁴³CO-, -CONR⁴⁴-, -SO₂NR⁴⁵-, -NR⁴⁶SO₂- or -NR⁴⁷- (wherein R⁴³, R⁴⁴, R⁴⁵, R⁴⁶ and R⁴⁷ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R³⁸ is as defined hereinbefore in (9'));
- 14') C_{2-5} alkenyl X^7R^{38} (wherein X^7 represents -O-, -S-, -SO-, -SO₂-, -NR⁴⁸CO-, -CONR⁴⁹-, -SO₂NR⁵⁰-, -NR⁵¹SO₂- or -NR⁵²- (wherein R⁴⁸, R⁴⁹, R⁵⁰, R⁵¹ and R⁵² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{38} is as defined hereinbefore in (9'));

15') C_{2-5} alkynyl X^8R^{38} (wherein X^8 represents -O-, -S-, -SO-, -SO₂-, -NR⁵³CO-, -CONR⁵⁴-, -SO₂NR⁵⁵-, -NR⁵⁶SO₂- or -NR⁵⁷- (wherein R⁵³, R⁵⁴, R⁵⁵, R⁵⁶ and R⁵⁷ each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{38} is as defined hereinbefore in (9'));

- 16') C_{1-3} alkyl X^9C_{1-3} alkyl R^{38} (wherein X^9 represents -O-, -S-, -SO-, -SO₂-, -NR⁵⁸CO-, -CONR⁵⁹-, -SO₂NR⁶⁰-, -NR⁶¹SO₂- or -NR⁶²- (wherein R⁵⁸, R⁵⁹, R⁶⁰, R⁶¹ and R⁶² each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{38} is as defined hereinbefore in (9')); and
- 17') C₁₋₃alkylX⁹C₁₋₃alkylR³⁷ (wherein X⁹ and R³⁷ are as defined hereinbefore (in 5')).